

ABSTRACT

A previously isolated hepatitis B virus (HBV) integration in a 147 bp cellular DNA fragment linked to hepatocellular carcinoma (HCC) was used as a probe to clone the corresponding complementary DNA from a human liver cDNA library. Nucleotide sequence analysis revealed that the overall structure of the cellular gene, which has been named hap, is similar to that of the DNA-binding hormone receptors. Six out of seven hepatoma and hepatoma-derived cell-lines express a 2.5 kb hap mRNA species which is undetectable in normal adult and fetal livers, but present in all non-hepatic tissues analyzed. Low stringency hybridization experiments revealed the existence of hap related genes in the human genome. The cloned DNA sequence is useful in the preparation of pure hap protein and as a probe in the detection and isolation of complementary DNA and RNA sequences. The hap protein is a retinoic acid (RA) receptor identified as RAR- β .